



Decision Memo

Pigeon Lake Hydrology Study

USDA Forest Service, Chequamegon-Nicolet National Forest
Washburn Ranger District, Bayfield County, Wisconsin

Proposal and Need for the Proposal

The Chequamegon-Nicolet National Forest (Forest) has partnered with the Wisconsin Geological and Natural History Survey to study the hydrogeology of Pigeon Lake near Drummond, WI. The studies will help us characterize the geology and better understand the groundwater connection to Pigeon Lake, which ultimately will improve risk assessments and management of the resources in the Forest. One objective of this project is to install water-table wells to study water table elevations and water flow directions in the area. Other studies included in this project include measuring water fluxes, measuring lake levels, and developing a water budget for the lake. In addition, water chemistry and sediment cores will be collected.

A description of the project, field methods employed, and uses of field data collected is attached to this decision. The Forest has proposed to authorize a special use permit to complete these studies.

Research Study Permit: This project is to authorize the Wisconsin Geological and Natural History Survey to conduct studies in and near Pigeon Lake. This special use permit allows for temporary occupation of Federal land for the Pigeon Lake Hydrology Study.

The Forest is proposing to allow Wisconsin Geological and Natural History Survey to:

- Drill eight boreholes, collect sediment cores, and install 8 water-table wells. The potential area of impact will be up to approximately 10x20 feet, with the expectation that actual disturbance would be quite a bit less. The proposed sites have limited vegetation and any removal would be incidental. Sites were selected to be near road right-of-way or other access points so that disturbance will be limited. The sites are somewhat evenly distributed around the Pigeon Lake. A licensed water well driller will install the wells in compliance with Wisconsin's Well Code. These water-table wells will not be drinking water wells.
- Measurement flows using seepage meters and piezometers to better characterize groundwater-surface water interactions, and
- Measure Lake Levels in Pigeon and Mountain Lakes with water loggers; 2 loggers in Pigeon Lake and 1 in Mountain Lake.

Decision

I have decided to approve the requests for the special use permit on National Forest Lands as described in the above section and in the remainder of this section. Table 1 shows the name and location of the areas that would be permitted. Each permit area is identified by a water-table well ID # which is also identified on the attached Decision Map.



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Because the water level around Pigeon Lake has continued to change in recent months, this decision includes 10 possible water-table well locations. Only 8 wells will be installed under this decision. I have included a few additional sites to give us flexibility to accomplish the project in the case that one or more sites are not viable for drilling at the time of implementation. All sites were included in the environmental review.

This authorization does not include widening of the routes or construction of new roads.

Water-table Well ID #	Latitude	Longitude	Description
1	46.342410	-91.366350	FR 394 Pigeon Lake Road, East side of the road
2	46.346784	-91.358846	Intersection of Pigeon Lake Rd and Black Duck Rd
4	46.346953	-91.353458	Along Pigeon Lake Rd between Black Duck and Delta Rd
6	46.347193	-91.335306	Pigeon Lake Rd, East of Delta
7	46.346165	-91.329465	Pigeon Lake Rd east of Delta, North side of the road.
10	46.340274	-91.374859	Intersection of Pigeon Lake Road (west) at County N
11	46.338730	-91.398528	Tars Pond road at pine clearing
20	46.337979	-91.36134	Large clearing south of County N, on private land
23	46.339851	-91.328760	Driveway on County N, South side of road
24	46.338799	-91.371809	South side of Hiatt Rd

Public Involvement

A letter was sent to interested parties, local and state government, and local landowners describing the proposal and soliciting comments on May 13, 2020. A description of the project was posted to the Forest's public website at <https://www.fs.usda.gov/project/?project=57851> and the project was included on the quarterly Schedule of Proposed Actions in April 2020.

Tribal consultation was initiated with a letter in May 2020.

We received 3 comments from local landowners, and one request for the decision for the project. Two comments were in support of the project. One commenter requested information regarding the possibility of the proposed well contaminating the groundwater. When it was explained that a licensed water well driller will install the wells in compliance with Wisconsin's Well Code; the commenter no longer had concerns with the project. No other concerns or issues were identified as a result of consultation and public involvement efforts.

Reasons for Categorically Excluding this Action

The Forest Service has identified typical classes of actions that normally do not require documentation in an environmental impact statement (EIS) or environmental assessment (EA) per 40CFR1507.3 (b) (2). These types of actions are called categorical exclusions. An action may be categorically excluded from documentation in an EIS or an EA only if that action falls within one of the identified categories (36 CFR 220.6 (d) and (e)) and when there are no extraordinary circumstances (36 CFR 220.6 (b)).



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The applicable categories of action identified in the Code of Federal Regulations (CFR) at 36 CFR 220.6(e) and in the Forest Service Handbook (FSH) at FSH 1909.15 that apply to this project:

- New Permit Issuance: 36 CFR 220.6(e)(3): *Approval, modification, or continuation of minor special uses of NFS lands that require less than five contiguous acres of land.*

This category of action requires a project or case file and Decision Memo.

I also find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS. I base this finding on the review of extraordinary circumstances which is documented in the Project File document titled: Resource Specialist Review for Extraordinary Circumstances, Pigeon Lake Hydrology Study. This project is fully funded by the Forest Service, as such, the environmental review included the review of sites on non-Forest Service Lands to ensure there were no extraordinary circumstances for the studies in those locations. I took into account resource conditions identified in 36 CFR 220.6 (b):

- *Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species* may be in the project area. All known locations of federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species will be avoided. Species located in or near the project area are listed under applicable determination:

The pertinent specialists reviewed the proposal and made the following determinations for threatened, endangered and/or proposed species:

No Effect: Gray Wolf, Northern Long-eared Bat, Fassett's Locoweed

The pertinent specialists reviewed the proposal and made the following determinations for sensitive species:

No Impact: Alpine Milk Vetch, Little Brown Bat, Tri-colored Bat, Big Brown Bat, Bald Eagle, Wood Turtle

May impact individuals but not likely to cause a trend to Federal listing or loss of viability: Monarch Butterfly

- *Flood plains, wetlands, or municipal watersheds* would not be adversely affected. There are no municipal watersheds within the affected area. A licensed water well driller will install the wells in compliance with Wisconsin's Well Code. There are no wetlands or floodplains in the proposed well locations, thus no impacts would occur. Floodplains are present in the areas proposed for the Piezometer, water level recorders, and seepage meter studies. No adverse impacts expected.
- This action does not take place in congressionally designated areas such as Wilderness, Wilderness Study Areas, or National Recreation Areas (Forest Plan Recreation Management Emphasis, Open Road Density, and Special Land Allocation Map and FEIS 3-199 and 3-201).



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- This action does not take place in an Inventoried Roadless Area (Forest Plan FEIS Appendix C and 2000 Roadless Area Conservation Rule or RACR).
- No Research Natural Areas or RNAs (Forest Plan FEIS Appendix N) would be affected by this project.
- American Indian and Alaska Native religious or cultural sites are not expected to be affected by these actions.
- *Archaeological sites or historic properties or areas* would not be affected by these actions (EC Checklists).

Based upon experience with similar types of projects, this action is considered minor in context and intensity. This action is categorically excluded from documentation in an environment assessment or environmental impact statement.

Findings Required by Other Laws and Regulations

Clean Water Act, As Amended 1977: The Federal Water Pollution Control Act of 1972, as amended, is commonly referred to as the Clean Water Act. Under Section 404, the U.S. Army Corps of Engineers (ACOE) has been given responsibility to regulate the discharge of dredged and fill material into waters of the United States, including wetlands (33 CFR 323.3). There is no discharge of dredged and fill materials into waters or wetlands associated with this project.

Endangered Species Act (ESA) of 1973, As Amended 1978, 1979, 1982, 1988 (16 U.S.C. 1531): This Act provides direction to the Forest Service to establish objectives for habitat management and recovery through the Forest Plan for the conservation and protection of endangered and threatened species. This project is consistent with these guidelines. There is no critical habitat present in the project area. No impacts to threatened or endangered species are expected with approval of the special use permit as described.

National Historic Preservation Act (16 U.S.C. 470): This Act provides direction for Federal agencies to establish a program for preservation of historic properties. In compliance with this act, potential impacts to sites eligible for the National Register of Historic Places were considered in this analysis. The proposed undertaking will have no effect to historic properties or unevaluated cultural resources. If archaeological remains are found prior to or during implementation, work will stop immediately until evaluation and clearance are provided.

Implementation Date and Administrative Review

Implementation may start immediately after the date of signature on this document. Decisions that are categorically excluded from documentation in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) are not subject to an administrative review process (Agriculture Act of 2014 [Pub. L. No. 113-79], Subtitle A, Sec. 8006).



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Contact

For additional information concerning this project, contact: Greg Knight, Minerals – Geology - Groundwater Program Manager, 850 North 8th, State Highway 13. Medford, WI 54451, phone 715-748-4875, email at greg.knight3@usda.gov.

Signature

X 

Signed by: PENNY MCLAUGHLIN

PAUL I. V. STRONG

Forest Supervisor

August 4, 2020

Date

Attachments:

Attachment 1: Decision Map

Attachment 2: Wisconsin Geological and Natural History Survey's Pigeon Lake Study Letter to Interest Parties with Brief description of the project, field methods employed, and uses of field data collected

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